

Claims

1. Multi-bridge for use in a network that contains a plurality of subnetworks, wherein the multi-bridge comprises:

for each subnetwork a set of at least two ports,

the multi-bridge being operable to register which of the ports are

5 used by a Virtual Local Area Network (VLAN), wherein the multi-bridge is arranged to forward a data packet which is sent with an identifier that identifies the VLAN to those of the ports that the VLAN is registered to use,

wherein the multi-bridge is operable to register upon receiving a data packet by one of the at least two ports of a particular set, that the VLAN
10 identified by the identifier of the data packet uses the ports of the particular set, at least when the multi-bridge has not yet registered that the VLAN identified by the identifier of the data packet uses the particular set on which the data packet was received.

2. Multi-bridge according to claim 1, wherein the multi-bridge is
15 further operable to de-register on the at least two ports of each set that is different from the set of which one of the at least two ports has received the data packet, if needed, the VLAN over which that data packet is sent.

3. Multi-bridge according to claim 2, wherein the multi-bridge is further operable to provide an alarm signal if within a predetermined time
20 span and by a predetermined number of times one VLAN is successively registered and de-registered on one set.

4. Method for allocating a Virtual Local Area Network (VLAN) to one set out of a number of such sets on a multi-bridge, wherein each set comprises at least two ports for a subnetwork out of a plurality of such
25 subnetworks which share the multi-bridge, wherein the method comprises: sending to one of the at least two ports of a set a data packet over a VLAN; and

registering the VLAN over which the data packet is send on each of the at least two ports of the set of which one of the at least two ports has received the data packet.

5 5. Method according to claim 4, characterised in that, the method further comprises:

de-registering on the at least two ports of each set that is different from the set of which one of the at least two ports has received the data packet, if needed, the VLAN over which that data packet is send.

10 6. Method according to claim 4, wherein the method comprises: providing an alarm signal if within a predetermined time and by a predetermined number of times one VLAN is successively registered and de-registered on one set

7. Network comprising a multi-bridge according to claim 1.